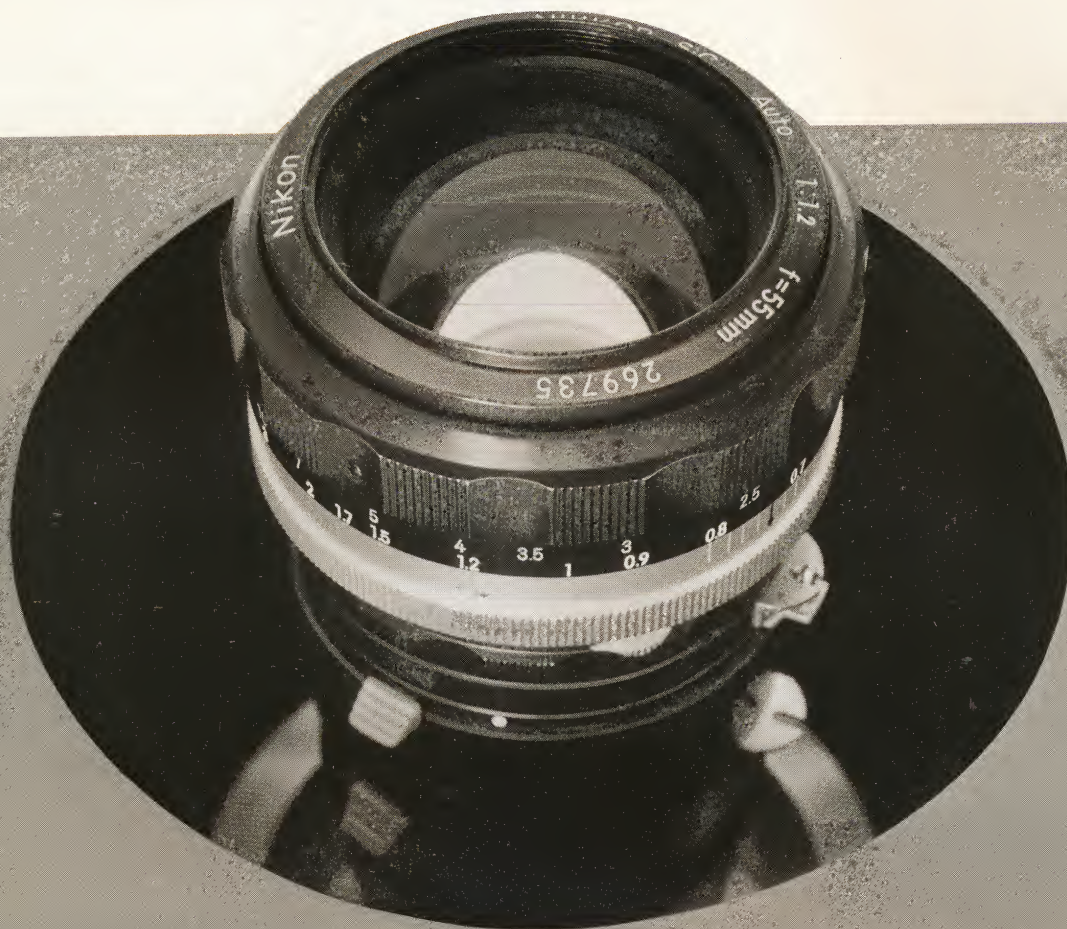


SIERRA
SCIENTIFIC
CORPORATION



Aug 77
→ NB features
for
pic analysis.



VIDEO STANDARD CAMERAS

-THE OPTIONS MAKE THE DIFFERENCE

Rare in the marketplace is a quality camera line that offers expanded performance and economy through creative engineering of versatile options.

We at Sierra are continuing to build an impressive stable of high-resolution, standard and low-light-level cameras — backed by the most imaginative diversified options package in the industry. By exploiting this 'modular' approach, Sierra customers can

'build' a wide variety of special cameras to meet the sophisticated, changing needs of today.

In addition to a broad selection of image tubes (which includes lead oxide and silicon vidicons), we offer such choices as remote controls, video polarity reversal, bandwidth filters, automatic gain control and shading correction. We also offer special gamma, automatic contrast control, external drive and EIA Sync modules.

Special systems like one-piece self-contained cameras are available, plus slow scan and X-Ray-sensitive units, ultra-high-resolution vidicons, SIT cameras, and image-intensifier combinations for low-light-level operations.

If you do not find in this brochure the exact camera or option you're after, be sure to check with us. Chances are, we have what you're looking for. If not, we'll make it.

THE FEATURES

All Sierra units share these basic features . . .

- Exceptionally high resolution — through maximizing image sharpness (N_e). Low shading even in picture corners.
- High signal-to-noise — the singular design of the camera preamplifier delivers a 2-to-1 signal-to-noise ratio improvement over competitive units when measured under the same gain/bandwidth conditions. The extended dynamic range of the video amplifier eliminates high-signal-level overloading, permitting use of the new high-output silicon target vidicons.
- Simplified setup — for ease of operation, all controls are positioned in control unit, none in the camera head. Example — alignment coils are used instead of magnets.
- Easy accessibility, maintenance — plug-in boards at front of remote control unit (plus card extenders for test points) assure easy access and maintenance.
- Regulated heater supply — regulated d-c voltage for the sensor tube heater allows use of tubes with different current ratings — d-c eliminates hum in the low-level video circuits, and no adjustment is required for different cable lengths.
- Dual outputs — two isolated video outputs (75-ohm) are provided in addition to outputs for four wave forms — horizontal and vertical drives, sync, and blanking. Sending-end terminations on these outputs allow long cable runs without reflection problems.

THE OPTIONS

Options for Sierra cameras divide into four categories — image tubes (see cover), synchronization, scanning modes, and video processing. Following are some of the more popular Sierra options.

SYNC

- Choice of 195 line rates from 289 to 1953 lines per frame. All available from camera's own sync generator, and available with crystal control. Two output formats: EIA RS-330/343, or RS-170.
- Camera operates in a 2-to-1 interlace, or sequential scan, from internal sync generator.
- Three external modes.
 - can be driven by external sync generator producing horizontal and vertical drives, sync, and blanking.
 - will operate if supplied with horizontal and vertical drives only. For composite video output, an optional adapter is required.
 - external composite sync or composite video.

VARIABLE SLOW SCAN

Exclusive magnetic deflection generator is available for performing variable pattern scanning. Rasters with repetition rates from .1 Hz to

- Choice of bandwidth . . . 30 MHz preamp with filters down to 500 KHz.
- Aperture correction — the inherent low noise of the cameras permits aperture correction for image sharpening.
- Hard-clamp circuitry prevents streaking.
- Linearity and distortion — combined linearity and distortion in Sierra cameras runs typically less than $\pm 1\%$ down to $\pm \frac{1}{4}\%$ in some models.
- Proven reliability — each camera is thoroughly tested with a 100-hour factory run-in (48 hours temperature cycled to 60°C), and every board carries complete documentation. Material and workmanship are covered by a limited warranty for one year.
- Cable length to 300'. Superflex available.



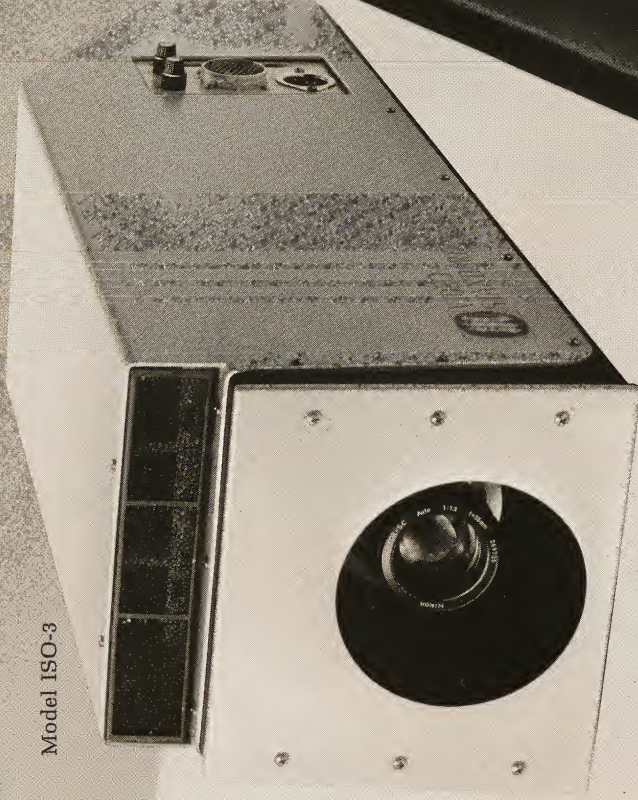
50 KHz on either axis can be generated internally. External scans of other geometry can be accepted.

VIDEO PROCESSING

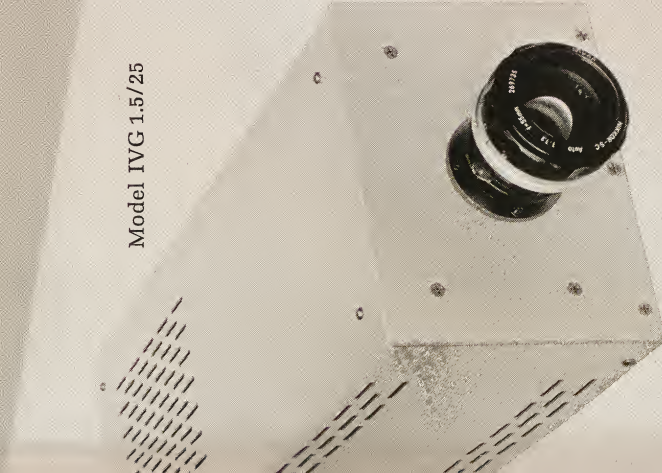
- True d-c output keeps blanking level at zero volts regardless of video and sync amplitude. Makes interfacing easy with computers and other digitizing equipment.
- Automatic gain control holds video amplitude constant when lead oxide and silicon tubes are used.
- Two types of shading correction. A special sensitivity modulator is used on cameras with vidicon tubes — gain modulation is standard on all other tubes. Both assure signal uniformity from screen center to corners.
- Video optimizer holds contrast constant on video monitor (over a 30-dB input range) regardless of the original scene's contrast.
- Auto target. Automatic target control provides constant video output over a wide range of illumination levels.

If you would like more information about Sierra's standard video cameras — or if you have any special applications you think we might be able to help you with, just drop us a card or call. We'll be pleased to assist in every way possible.

Model ISO-3



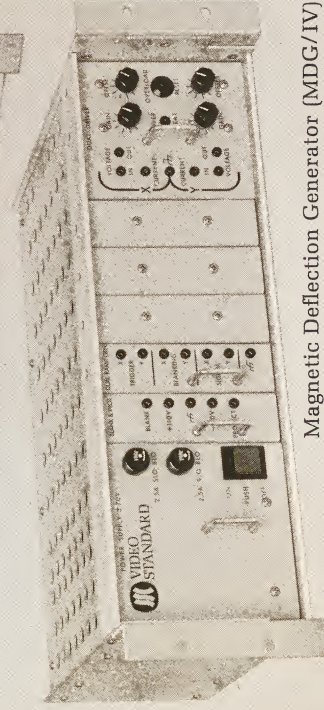
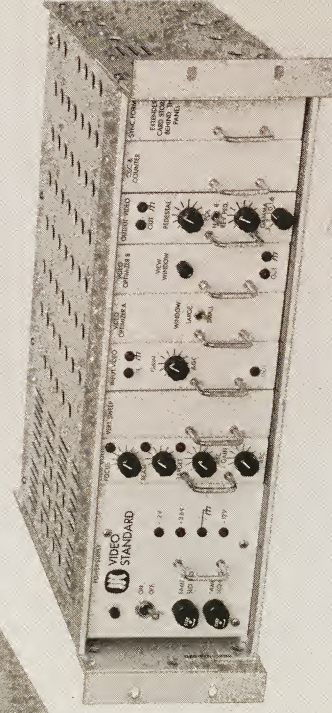
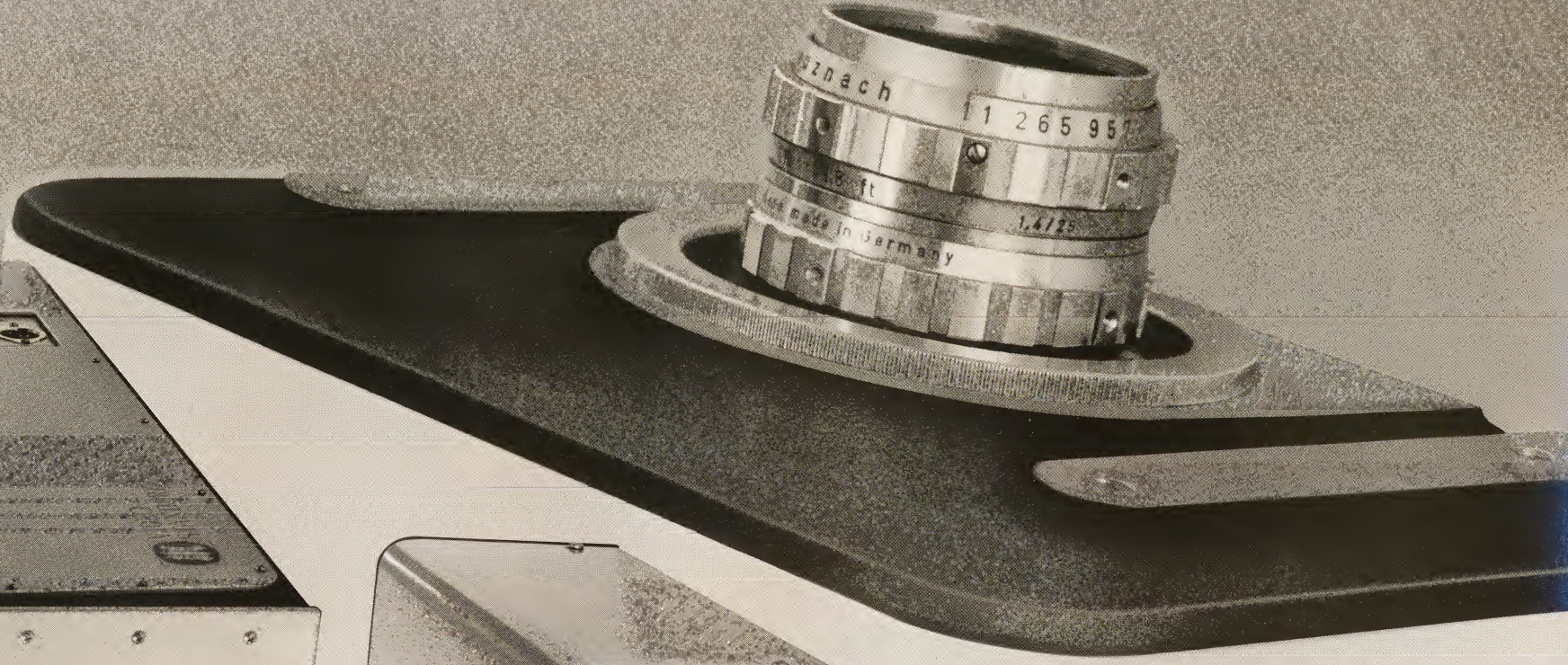
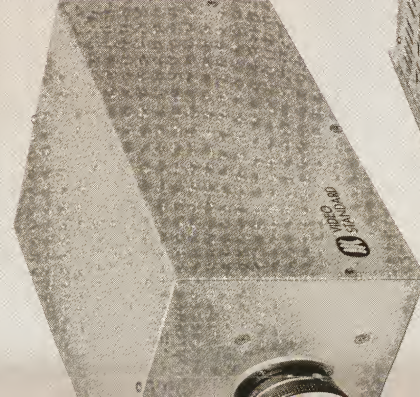
Model IVG 1.5/25



Model LSV-1



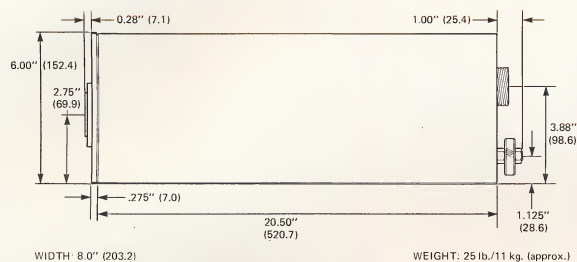
Model LSV 1.5R



Magnetic Deflection Generator (MDG/IV)

VIDEO STANDARD CAMERAS DIMENSION DRAWINGS

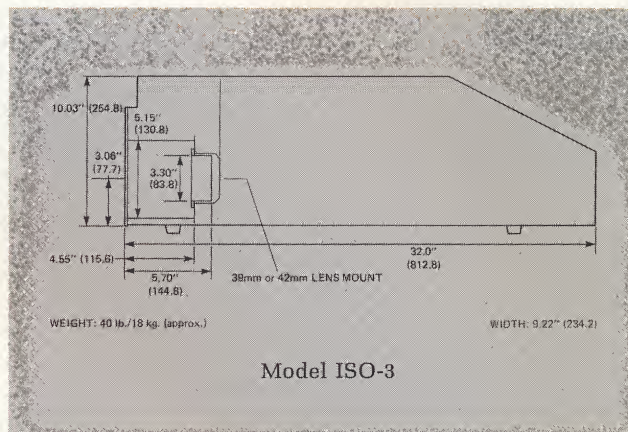
(mm)



WIDTH: 8.0\" (203.2)

Model IVG 1.5/25

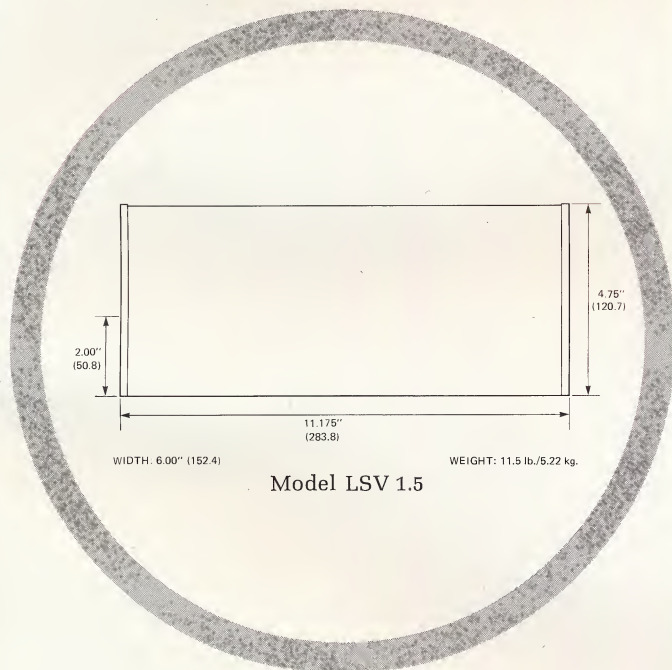
WEIGHT: 25 lb./11 kg. (approx.)



WEIGHT: 40 lb./18 kg. (approx.)

WIDTH: 9.22\" (234.2)

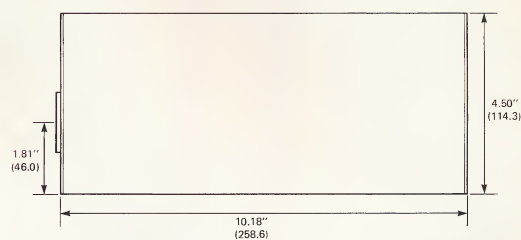
Model ISO-3



WIDTH: 6.00\" (152.4)

Model LSV 1.5

WEIGHT: 11.5 lb./5.22 kg.



WEIGHT: 6.5 lb./2.95 kg.

WIDTH: 5.45\" (138.4)

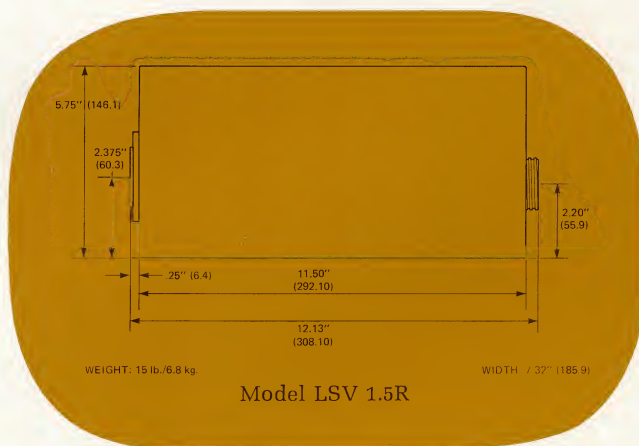
Model LSV-1

Represented by:



**SIERRA
SCIENTIFIC
CORPORATION**

2189 Leghorn Street • Mountain View, CA 94043 • (415) 969-9315



WEIGHT: 15 lb./6.8 kg.

WIDTH: 7.37\" (185.9)

Model LSV 1.5R

Camera Control Unit—WEIGHT: 22 lb./9.98 kg.
Magnetic Deflection Generator—WEIGHT: 21 lb./9.5 kg.

L1300302276